



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/723,950

11/26/2003

Stephen Gold

100204110-1

9415

22879 7590 07/22/2008

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

ELMORE, REBA I

ART UNIT

PAPER NUMBER

2189

NOTIFICATION DATE

DELIVERY MODE

07/22/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM  
mkraft@hp.com  
ipa.mail@hp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,950	<b>Applicant(s)</b> GOLD ET AL.	
	<b>Examiner</b> Reba I. Elmore	<b>Art Unit</b> 2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/2/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. Claims 1-47 are presented for examination. Claim 47 was added as a dependent claim in the amendment filed April 2, 2008.

### *SPECIFICATION*

2. The objection to the title is ***maintained***. The current title is vague to the point of not conveying any distinction of the current claimed present invention over any other data storage system or method. The title being proper because of its correspondence with the claim preambles does not meet the requirements for a title which includes the inventive concept of the present invention. The Applicant has not invented a data management system, per se, an article of manufacture, per se, a data storage method, per se or an electrical system. These are nothing more than fields of endeavors or broad concepts already present in the public domain. None of these preambles encompass the inventive nature of the present invention and are therefore inadequate as a title. See 37 CFR 1.72(a) and MPEP § 606.

3. The objection to the specification for not providing a summary of the invention which meets the suggested guidelines is ***maintained***. Eliminating the previous summary of the invention does not negate the need of this section of the specification. Each section of the specification provides a different function in explaining the present invention to the public once an application is allowed and becomes a patent.

Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or

how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

Appropriate correction is required.

4. The amendment filed January 10, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: '*wherein the storage devices are external to the protected computer systems*'. The Applicant has not taught or discussed external storage devices.

Applicant is required to cancel the new matter in the reply to this Office Action.

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***35 USC § 112, 1<sup>st</sup> Paragraph***

6. The rejection of claims 1-46, now 1-47, under 35 USC § 112, 1<sup>st</sup> paragraph as failing to comply to the written description requirement is ***maintained*** and repeated below. Removing the term 'client' does not provide a definition within the specification for what the Applicant considers 'protected computer systems' within the purview of the present invention.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of

\*\*\*\*\*

making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-46 are rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

9. The written description persistently uses terminology which has not been adequately described. The claims and the specification refer to 'protected computer systems', however, this terminology is only repeated in the specification and drawings without being defined. The specification also discusses protecting data as being separate and distinct from the protected systems. This further confuses the use of the given terminology. The law requires that the written description be clear and precise as to how the Applicant performs such activities as those claimed. The specification uses terms which are not further defined, yet, these terms are essential subject matter as they are included in the claims. The concept of 'protected' has many different interpretations when used in conjunction with computers and therefore requires definition within the specification. The novelty of the present invention must be disclosed in such detail as to allow one of ordinary skill in the art to make and use the invention without undue experimentation. Such details for the actual inventive concepts have not been given in the present disclosure. Legal support for these reasons for a determination that the written disclosure is not adequate can be found in the recent US Court of Appeals for the Federal Circuit, Automotive Technologies International, Inc., v. BMS of North America,

Inc ... (2006-1013,-1037).

***35 USC 112, 2<sup>nd</sup> Paragraph***

10. The rejection of claims 1-46, now 1-47, under 35 USC § 112, 2nd paragraph as failing to particularly point out and distinctly claim the subject matter of the invention is ***maintained*** and repeated below with changes to reflect the amendment of the claims.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. The claims are indefinite because the terminology ‘protected computer system’ has several implied meanings which raise the following questions:

- a. Is the protecting of the system accomplished through hardware in some way or is the system limited as to uses by the client or system administrator or is the software being limited as far as client usage or network access or accessibility?
- b. Is the ‘protected computer system’ referring to security such as a firewall or some other type of system security?
- c. Since the specification is silent as to the meaning of this language and does not state how the protection applies to the other claimed limitations the metes and bounds of the claim language cannot be determined.

***35 USC § 102***

14. The rejection of claims 1-46 as being anticipated by Wahl et al. is still ***maintained*** and claim 47 is added to the rejection. The rejection has been updated to include the amendments to the claims.

15. The Wahl reference has been applied with the understanding that different types of protection are taught. The data is protected, also the system is taught as being a SPARC environment which limits or protects the operating system from commands from other computer languages than Solaris 2.X as well as prevents the secondary computer system from executing applications when the proper authority has not be established. Additionally, access to the mirror devices of the secondary computer system can be denied dependent upon the operational mode. All of these aspects of the Wahl reference are concepts directed toward protection of a computer system or within a computer system.

16. The following is a quotation of the appropriate paragraphs of 35 USC 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-47 are rejected under 35 USC 102(b) as being anticipated by Wahl et el. (P/N 6,442,706).

18. Wahl teaches the invention (claims 1) as claimed including a data management system comprising:

a data storage system configured to store data of a plurality of protected computer systems, wherein the data storage system comprises a plurality of storage devices

\*\*\*\*\*

individually having a respective capacity, and a quantity of the data of the protected computer systems to be stored exceeds capacities of individual storage devices as using a RAID system for back-up or mirror storage of database files (e.g., see col. 24, lines 5-24) the reference also discusses overflow conditions for memory elements which teaches the storage capacity being exceeded (e.g., col. 3, lines 24-37); and,

storage control circuitry coupled with the data storage system and configured to assign individual storage devices to store data for respective protected computer system (e.g., see col. 5, line 32 to col. 6, line 27 and col. 24, lines 5-24).

As to claim 2, Wahl teaches the storage control circuitry is configured to receive a request to add a new protected computer system and to assign one of the storage devices to implement data storage operations with respect to the new protected computer system as the network having more than one secondary computer system (e.g., see col. 6, lines 34-58).

As to claim 3, Wahl teaches the storage control circuitry is configured to monitor a status of at least one storage device and to assign a storage device for the new protected computer responsive to the monitoring as using throttles (e.g., see col. 15, lines 1-29).

As to claim 4, Wahl teaches the monitoring a processing capacity of an archive agent of at least one storage device as using a throttle which monitors percentages of central processing unit resources (e.g., see col. 15, lines 1-29).

As to claim 5, Wahl teaches the monitoring a storage capacity of a storage device as monitoring the capacity of the write-log (e.g., see col. 15, lines 1-29).

As to claim 6, Wahl teaches monitoring a status of a plurality of storage devices and assigning the storage device having a greatest available capacity as dynamically



assigning disk storage space (e.g., see col. 3, lines 24-37).

As to claim 7, Wahl teaches entirety of the data for the protected computer systems are stored using respective assigned storage devices as a feature of the Qualix DataStar software which controls the data mirroring environment of the disk system (e.g., see col. 5, line 57 to col. 6, line 27).

As to claim 8, Wahl teaches the entirety of the data has a baseline data and associated delta data for the respective protective computer system as update data (e.g., see col. 9, lines 48-58).

As to claim 9, Wahl teaches the storage control circuitry is configured to assign a plurality of storage devices to store an entirety of the data for one of the protected computer systems as mirrored data (e.g., see col. 10, line 62 to col. 12, line 20).

As to claim 10, Wahl teaches the storage control circuitry comprises a tracking database configured to store associations of the storage devices with respective protected computer systems (e.g., see col. 23, line 61 to col. 24, line 29).

As to claim 11, Wahl teaches the storage devices comprise disk storage devices (e.g., see col. 1, lines 12-67).

As to claim 12, Wahl teaches at least one storage device is configured to store data for a plurality of the protected computer systems (e.g., see col. 23, line 61 to col. 24, line 29).

As to claim 13, Wahl teaches the storage devices individually comprise an archive agent and a storage space as a secondary computer system and remote data mirroring system (e.g., see col. 8, lines 46-58).

As to claim 14, Wahl teaches the storage control circuitry comprises a master cell

manager and at least one slave cell manager and wherein the master cell manager is configured to assign one of the protected computer systems to a storage device associated with at least one slave cell manager with the master cell manager being the primary mirror daemon and the slave cell manager being the remote mirror daemon (e.g., see Figure 1).

As to claim 15, Wahl teaches one of the storage devices is configured to transfer data for one of the protected computer systems to another storage device (e.g., see Figure 5).

19. Wahl teaches the invention (claim 16 and 38-46) as claimed including a data management system comprising:

plural means for storing electronic data, wherein individual ones of the plural means for storing comprise a respective data storage capacity as the data storage capacity of the primary storage system (e.g., see Figure 5);

means for communicating data intermediate to the plural storage means and a plurality of protected computer systems, wherein a quantity of data of the protected computer systems exceeds individual data storage capacities of individual means for storing as dynamically assigning memory space dependent upon overflow conditions (e.g., see col. 3, lines 24-54); and,

means for assigning individual ones of the means for storing to store data for respective client protected computer systems (e.g., see col. 3, lines 24-54).

As to claim 17, Wahl teaches the plurality means for storing individually comprise means for storing an entirety of the data for a respective protected computer system (e.g., see Figure 1).

As to claim 18, Wahl teaches plural ones of the means for storing comprise means for storing an entirety of the data for a respective protected computer systems (e.g., see col. 23, line 61 to col. 24, line 29).

As to claim 19, Wahl teaches a tracking means for storing information regarding associations of individual plural means for storing with respective protected computer systems (e.g., see col. 23, line 61 to col. 24, line 29).

As to claim 20, Wahl teaches the plural means for storing individual archive means and physical storage means (e.g., see Figure 5).

As to claim 47, Wahl teaches the present invention wherein the protected computer systems are individually configured to communicate the data to the data management system via a network as Figures 1, 3 and 5 showing using the network. The reference teaches a computer network remote data mirroring system thereby also teaching data protection.

20. Wahl teaches the invention (claim 21) as claimed including an article of manufacture comprising:

a processor-usable medium comprising processor-usable code configured to cause processing circuitry of storage control circuitry as the Qualix DataStar software which controls the data mirroring environment of the disk system (e.g., see col. 5, line 57 to col. 6, line 27) to:

access information regarding a plurality of storage devices (e.g., see Figure 5);

access information regarding a plurality of protected computer systems (e.g., see col. 23, line 61 to col. 24, line 29);

associated individual protected computer systems with respective storage devices (e.g., see col. 23, line 61 to col. 24, line 29);

receive a request to add a new protected computer system (e.g., see col. 3, lines 24-37);

monitor capacities of the storage devices (e.g., see col. 5, line 57 to col. 6, line 58); and,

assign the new protected computer to a storage device responsive to the monitoring (e.g., see col. 5, line 57 to col. 6, line 58).

As to claim 22, Wahl teaches the processor-usable code is configured to cause the processing circuitry to associate responsive to user input as utilizing a graphical user interface (e.g., see col. 15, lines 30-53).

As to claim 23, Wahl teaches the processor-usable code is configured to cause the processing circuitry to associate responsive to the monitoring as using the macro language of throttles (e.g., see col. 15, lines 1-29).

21. Wahl teaches the invention (claim 24) as claimed including a data storage method comprising:

providing a plurality of storage devices configured to store data for a plurality of protected computer systems, wherein the storage devices individually comprise processing circuitry and a storage space as using a RAID system for back-up or mirror storage of database files (e.g., see col. 24, lines 5-24);

monitoring capacities of individual storage devices as using throttles which monitor percentages of central processing unit resources (e.g., see col. 15, lines 1-29);

associating one of the protected computer systems with one of the storage devices

responsive to the monitoring (e.g., see col. 15, lines 1-29); and,

implementing storage operations of the data for the associated protected computer system using the associated storage devices in accordance with the associating (e.g., see col. 24, lines 5-24).

As to claim 25, Wahl teaches a quantity of data of the protected computer systems to be stored exceeds individual capacities of individual storage devices (e.g., see col. 3, lines 24-37).

As to claim 26, Wahl teaches maintaining a record of the association of the storage device and one protected computer system (e.g., see Figure 5).

As to claim 27, Wahl teaches the monitoring comprises monitoring storage capacities of the storage devices (e.g., see col. 15, lines 1-29).

As to claim 28, Wahl teaches the monitoring comprises monitoring processing capacities of the storage devices (e.g., see col. 15, lines 1-29).

As to claim 29, Wahl teaches the monitoring and assigning comprise monitoring and assigning using storage control circuitry (e.g., see col. 15, lines 1-29).

As to claim 30, Wahl teaches providing the storage control circuitry comprises a distributed control system (e.g., see col. 5, line 32 to col. 6, line 58).

As to claim 31, Wahl teaches associating a protected computer system with a storage device having a greatest available capacity as dynamically assigning disk storage space (e.g., see col. 3, lines 24-37).

As to claim 32, Wahl teaches transferring at least a portion of the data of a protected computer system from the storage device to another storage device (e.g., see Figure 5).

22. Wahl teaches the invention (claim 33) as claimed including a data storage method comprising:

a plurality of storage devices configured to store data for a plurality of protected computer systems, the storage devices individually comprising processing circuitry (e.g., see Figure 1);

storing the data using the storage devices (e.g., see Figure 1);

monitoring capacities of the storage devices using storage control circuitry as dynamically assigning disk storage space (e.g., see col. 3, lines 24-37);

providing a new storage device configured to store data for at least one of the protected computer system (e.g., see col. 23, line 61 to col. 24, line 64); and,

coupling processing circuitry of the new storage device with the storage control circuitry (e.g., see Figure 5).

As to claim 34, Wahl teaches monitoring capacity of the new storage device using the storage control circuitry after the coupling (e.g., see col. 15, lines 1-29).

As to claim 35, Wahl teaches monitoring processing capacities of the storage devices (e.g., see col. 15, lines 1-29).

As to claim 36, Wahl teaches monitoring storage capacities of the storage devices (e.g., see col. 15, lines 1-29).

23. As to claims 1-23 and 41-47, the claimed invention is directed toward a system and an article of manufacture, both of which are considered structure or hardware. The 'wherein' clauses for the system and article claims have been rejected using art but the 'wherein' language cannot be further relied upon for patentability in hardware style claims. Claims 1-15, 21-23 and 41-47 are not interpreted as means-plus-function claims

as they are not written in a style or manner indicative of such a claim structure. Claim limitations of 16-20 are also considered to be structural equivalents since the present application is silent as to the equivalencies for the '*plural means for storing electronic data*', '*means for communicating data*' and '*means for assigning*'. Therefore MPEP 2114 is pertinent to the application of art to the above apparatus claims. The wherein clauses are directed to functions rather than structure and the cited section of the MPEP states ">an< apparatus must be distinguished from the prior art in terms of structure rather than function" as the same structure is capable of performing the same type of functionalities.

### ***RESPONSE TO APPLICANT'S REMARKS***

24. Applicant's arguments filed April 2, 2008 have been fully considered but they are not persuasive. Limitations of the claims are being argued in much greater detail than warranted by the actual claim language. Also, the reference is not being considered as a whole in teaching the claimed limitations by the Applicant.

25. As to arguments stating the 'protected computer systems' is adequately taught or defined with the cited paragraphs 0021-0022 of the present specification, these paragraphs make a distinction between 'protected data' and 'protected computer systems'. These are separate concepts. In addition, the paragraphs encompass a wide variety of typical systems without giving the particulars necessary for implementing the present invention in 'protected computer systems'.

26. As to rejections not being previously given, the previous office action was not final which allowed the Applicant the ability to respond to the new rejections. Any objection or rejection can be given at any point in prosecution of the application as long

as new rejections are not given for already claimed limitations without allowing the Applicant's a chance for a response.

27. The removal of the term 'client' does not provide an adequate written description for the 'protected computer systems' terminology in relationship to what the Applicant views as the present invention. The specification clearly states all types of computer systems are 'protected computer systems', however, this does not give a clear written description of the present invention in relationship to what the Applicant claims as a 'protected computer system'. This language is also indefinite because of the ambiguity of the constant references to 'protected computer systems' without further definition of this limitation in relationship to the other claimed limitations. In reading this language in light of the application disclosure, the claimed limitation is confusing. The Applicant's invention can be implemented in a variety of computer systems (paragraph 0021 of the present specification), otherwise, details of how the computer systems are protected in relationship to the other elements claimed must be given in the specification. As to the Applicant being their own lexicographers, the terms must still be adequately defined for one to make and use the present invention.

28. As to the Wahl reference not teaching a plurality of protected computer systems, the Applicant has stated several times that 'protected computer systems' are well known in the art for computer systems and network computer systems. Paragraph 0021 of the present specification states:

*“[0021] Protected computer systems 14 are configured to generate electronic data to be stored for subsequent retrieval and access. Exemplary protected computer systems 14 may comprise personal computers, work stations, servers, combinations of such devices,*



*and/or other electrical devices capable of providing or accessing electronic data. In one embodiment, protected computer systems 14 comprise respective electronic file systems or groups of electronic file systems.”*

29. As to the reference not disclosing positively-recited limitations, the exact language of the claims is interpreted for applying prior art. The concepts of the claimed limitations are taught which teaches the claimed limitations to the extent required by the reference.

30. As to the Wahl reference not teaching *‘a plurality of storage devices and a quantity of data of the protected computer systems to be stored exceeds capacities of individual ones of the storage devices’*, these limitations are taught by the reference. The figures of the reference clearly show each system using multiple local data devices, multiple write-logs and multiple mirror devices as well a write-log extension pool. The concepts of the claimed language are taught to the extent required by the actual claim language. The reference teaches multiple storage devices and adding storage devices when the data to be stored would exceed the single storage device(s). Additionally, the cited section of Wahl teaches memory is assigned in such a method as to prevent overflow conditions which would not provide *‘protected data’*. Disk storage devices are added as required to safely store the data.

31. As to arguments directed to the reference not teaching *‘storage control circuitry configured to assign individual ones of the individual storage devices’* to store data *‘for respective ones of the protected computer systems’*, the reference teaches these elements as all data storage is *‘assigned’* as part of the addressing structure of the storage system. Data is always stored according to addressing specifics of the system, otherwise, the data

could not be retrieved which would defeat the purpose of storing the data. The

*'associate'* language is equivalent to the *'assigning'* language.

32. As to the reference not teaching *'monitoring capacities of the storage devices'*, this limitation is discussed by the reference as the system requiring additional storage for a particular storage function. Also, a cited section of the reference discusses storage overflow conditions which indicates monitoring storage capacities.

33. As to arguments directed toward *'storage devices are external to the protected computer systems'*, the reference teaches remote mirroring data in a secondary system. This limitation is taught to the extent required by the actual claim language, particularly, as the storage devices being external to the protected computer system has not be defined or discussed within the original specification. This language is now objected to as being new matter as it was not in the originally filed specification. As this is an objection and not a rejection this action can still be made final.

34. As to arguments directed toward *'coupling processing circuitry of the new storage devices with the storage control circuitry'* this concept is taught as the additional storage of the reference would be useless without such coupling. This argument is considered specious. This also applies to the arguments for the language *'a plurality of protected computer systems individually comprising processing circuitry configured to process data and storage circuitry configured to store the data'*. All the computers, systems and networks discussed in the reference have processing circuitry, storage circuitry and data management circuitry. The systems discussed in the reference are considered operable which means these types of circuitry must be part of the reference systems.

***OFFICE ACTION FINALITY***

35. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***CONCLUSION***

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (571) 272-4192. The examiner can normally be reached on Monday and Thursday from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2189, Reginald G. Bragdon, can be reached for general questions concerning this application at (571) 272-4204. Additionally, the official fax phone number for the art unit is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or

\*\*\*\*\*

Art Unit: 2189

---

proceeding should be directed to the Tech Center central telephone number is (571) 272-2100.

/Reba I. Elmore/  
Primary Patent Examiner  
Art Unit 2189

Monday, July 14, 2008

\*\*\*\*\*